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U.S. Organic Farming: A Decade of Expansion

American farmland under organic management has grown steadily over the last decade, with acreage for major crops (e.g., corn and soybeans) more than doubling between 1992 and 1997, and again between 1997 and 2001. Certified organic pasture (including ranchland) also doubled between 1997 and 2001, following USDA's lifting of restrictions on organic meat labeling in the late 1990s.

The rapid increase kept pace with consumer demand for organically produced food, which grew rapidly throughout the 1990s—20 percent or more annually. According to industry data, retail sales of organic products more than doubled between 1992 and 1996 to \$3.5 billion, mirroring the growth in acreage during this period. The growth in demand has continued. By 2001, U.S. organic sales exceeded \$9 billion, according to estimates from the International Trade Centre, and accounted for approximately 2 percent of total food sales. USDA's national organic standards and labeling rules, which went into effect in October, may potentially act as a marketing tool, generating further interest in organic products among farmers and consumers.

A decade in the making, USDA's new organic standards incorporate an ecological approach to farming that fosters cycling of resources and protection of biodiversity. Behind each organic label is a system of agricultural production and processing that meets a comprehensive system of national standards. The standards apply to the entire production system, not just individual practices such as use of specific inputs.

Measuring Adoption of Organic Farming

Acreage farmed with certified organic practices is based on data collected from all state and private certifiers active in the U.S. during 2000 and 2001. The procedures are similar to those used in previous benchmark reports on this sector for the 1992-94 period and for 1997. Data from state and private organic certifiers were collected and analyzed, uncertified production was excluded, and double-certified acreage was counted only once whenever possible. Fifty-three organic certification organizations—14 state and 39 private—conducted third-party certification of organic production in 2000 and 2001.

Producers who shift to organic farming systems from chemical-intensive systems must make changes across the broad spectrum of their production inputs and practices. An increasing number of farmers in the U.S. have taken on that challenge in recent years, meeting production and processing standards set by state and private organizations that have now been codified and expanded in the national standards.

Other Countries Ahead

U.S. farmers and ranchers have added a million acres of certified organic cropland and pasture since 1997 (certified by state or private organizations), bringing the total to 2.35 million acres in 48 states in 2001. According to USDA's Economic Research Service (ERS), farmers and ranchers certified about 1.3 million acres of cropland and 1 million acres of pasture and rangeland in 2001. Overall, certified organic cropland and pasture accounted for 0.3 percent of U.S. cropland and pasture in 2002, although for some crop sectors, particularly fruits and vegetables, the proportions were much higher. Examples include organic apples (3 percent of that crop's acreage), organic carrots (4 percent), and organic lettuce (5 percent).

Even so, the U.S. trails other countries in organic numbers. According to a worldwide survey in 2001 by a private research firm in Germany, the U.S. ranked fourth in land area managed under organic farming systems, behind Australia (with 19 million acres), Argentina (6.9 million acres), and Italy (2.6 million acres). Brazil, Germany, the United Kingdom (UK), Spain, France, and Canada also ranked among the top 10 countries in total organic area. In percentage of total farmland managed organically, the U.S. did not make the top 10. The leaders here were Switzerland (9 percent of total land area under organic management), Austria (8.6 percent), Italy (6.8 percent), Sweden (5.2 percent), the Czech Republic (3.9 percent), and the UK (3.3 percent).

While government intervention in the U.S. has focused primarily on market facilitation, at least two states—Iowa and Minnesota—have begun subsidizing conversion to organic farming systems as a way to capture the environmental benefits of these systems. Also, a number of uni-

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National Standards Regulate Organic Production & Marketing

USDA's National Organic Program (NOP), authorized under the Organic Foods Production Act of 1990, facilitates domestic marketing of organically produced fresh and processed food, and assures consumers that such products meet consistent, uniform standards. USDA's Agricultural Marketing Service (AMS) published the final rule implementing the legislation in December 2000. The rule, which went into effect on October 21, 2002, requires that organic farmers and processors be certified by a state or private agency accredited under national standards. The program establishes:

- national production and handling standards for organically produced products, including a list of substances (inputs) that can and cannot be used,
- a national program for accrediting state and private organizations as certifying agents under the USDA national standards for organic certifiers,
- requirements for labeling products as organic or as containing organic ingredients,
- rules for importation of organic agricultural products, and
- civil penalties for violations of these regulations (e.g., falsely claiming a product is organic).

These regulations require that organic growers and handlers (including food processors) be certified if they wish to market a product as organic, unless they sell less than \$5,000 a year in organic agricultural products. Retail food establishments that sell organically produced agricultural products but do not process them are also exempt from certification.

versities have begun multidisciplinary organic research trials in recent years. One nonprofit group, the Organic Farming Research Foundation in Santa Cruz, California, started a grant program in 1990 for scientist-farmer teams to study organic production and marketing systems.

During the last several years, a number of USDA agencies have launched new programs and pilot projects to help organic producers address production and marketing problems and risks. And the Farm Security and Rural Investment Act of 2002 (Farm Act) includes several small but groundbreaking initiatives on research and technical assistance for organic farmers. For example, the Act authorizes \$5 million for a national cost-share assistance program to help organic farmers with small operations cover a substantial portion of the costs of certification. European countries with high levels of conversion to organic farming have been providing direct financial support for conversion since the late 1980s.

California Leads in Cropland, Colorado in Pasture

California, with mostly fruits and vegetables, and North Dakota, with wheat, soybeans, and other field crops, were the top two states in 2001 for certified organic cropland. Farmers in California had nearly 150,000 acres under certified organic management, and North Dakota producers followed closely with nearly 145,000 acres. Minnesota, Wisconsin, Iowa, and Montana were other leading states in terms of total certified organic cropland. Every state but Mississippi and Delaware had some certified cropland. Certified organic cropland increased significantly in most states in the U.S. between 1997 and 2001, more than doubling in 12 states. Pasture more than doubled in 24 states.

The organic farm sector differs substantially from the conventional farm sector in having a higher proportion of cropland devoted to vegetable production. While total vegetable acreage in the U.S. accounts for under 1 percent of total U.S. cropland, certified organic vegetable acreage accounts for nearly 5 percent of the total cropland under certified organic

management. Certified organic vegetables were grown in more states than any other organic crop.

The top three states for certified organic pasture in 2001 each had over 100,000 acres—Colorado (514,000 acres), Texas (221,000 acres), and Montana (137,000 acres). Forty other states also had certified pasture in 2001, most with less than 20,000 acres. Organic animal production systems were certified in 37 states in 2001, up from 23 states in 1997.

The number of certified organic beef cattle, milk cows, hogs, pigs, sheep, and lambs was about 72,000 in 2001, up nearly 4-fold since 1997. Dairy has been one of the fastest growing segments of the organic foods industry during this period, and milk cows accounted for over half of the certified animals. Poultry raised under certified organic management showed even higher levels of growth during this period. Certified organic layer hens, broilers and other poultry increased over 6-fold between 1997 and 2001. In 1999, USDA eased organic labeling restrictions for broilers. As a result, farmers rapidly expanded certified broiler production, increasing from 38,000 birds in 1997 to nearly 2 million birds in 2000, and over 3 million in 2001.

Organic expansion has not been uniform in the U.S. Between 1997 and 2001, nine states, over half in the South—Georgia, Louisiana, South Carolina, Tennessee and West Virginia—showed an overall decline in certified organic farmland. In general, the South has had less certified organic farmland than other regions, and small, local nonprofit enterprises have performed most of the certification in these states. A number of these certifying enterprises dropped their certification programs when national rules were implemented, likely causing some dislocation among certified growers in the region. However, several new certification programs have recently emerged in the South—including a state program in South Carolina and a local private program (Florida Certified Organic Growers and Consumers) that has expanded to other states—to fill in for services lost during the transition.

Organic farmland also receded in Florida and Idaho between 1997 and 2001

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U.S. Organic Farming Continues to Expand

Item	1992	1993	1994	1995	1996	1997	2000	2001	Change		
									1992-1997	1997-2001	2000-2001

-- Indicates data not available. Numbers may not add due to rounding.

1. Total livestock includes other and unclassified animals. 2. Total poultry includes other and unclassified animals. 3. Does not include subcontracted organic farm operations.

Sources: 1992-94, Agricultural Marketing Service, USDA; 1995 (including revisions of 1992-94 farmland), Agrisystems International; 1997, 2000, 2001, Economic Research Service, USDA Economic Research Service, USDA

because large organic wild-crop operations for St. John's wort and saw palmetto berries (harvested from land not maintained under cultivation) discontinued their certification in those states. Idaho experienced severe drought conditions between 1997 and 2001, which lowered planted acreage in both conventional and organic farm sectors. Organic acreage also fell substantially in Alaska because the large ranches that had experimented with organic livestock production during the late 1990s decided to pursue other activities.

Small Farms Still Reign

Recent ERS research provides the first-ever estimates of the number of certified organic operations by state. California has the most, with slightly over 1,000 operations in 2001, up 12 percent from the previous year. Following California are Washington (548 operations), Wisconsin (469), Minnesota (421), Iowa (384), Pennsylvania (281), Ohio (265), New York (264), Vermont (251) and Maine (244). Only 3 of the top 10 states in number of certified operations—California, Minnesota, and Iowa—are also in the top 10 for certified cropland acreage.

Many of the top states in number of certified operations—particularly in the Northeast and Mid-Atlantic regions—are states with a high proportion of small farms that grow fruits and vegetables for direct marketing to consumers. Even in California, where the majority of very large organic fruit and vegetable operations are located, most of the organic farms are small. Recent analysis of organic farm trends by

the University of California indicates that the state's organic farms remained small (under 5 acres on average) throughout the late 1990s. Average size of certified organic farms is up in California and the U.S. as a whole, as existing organic farmers expand and new large-scale operations become certified. Small-scale farms remain prevalent.

International Workshop on Organic Agriculture

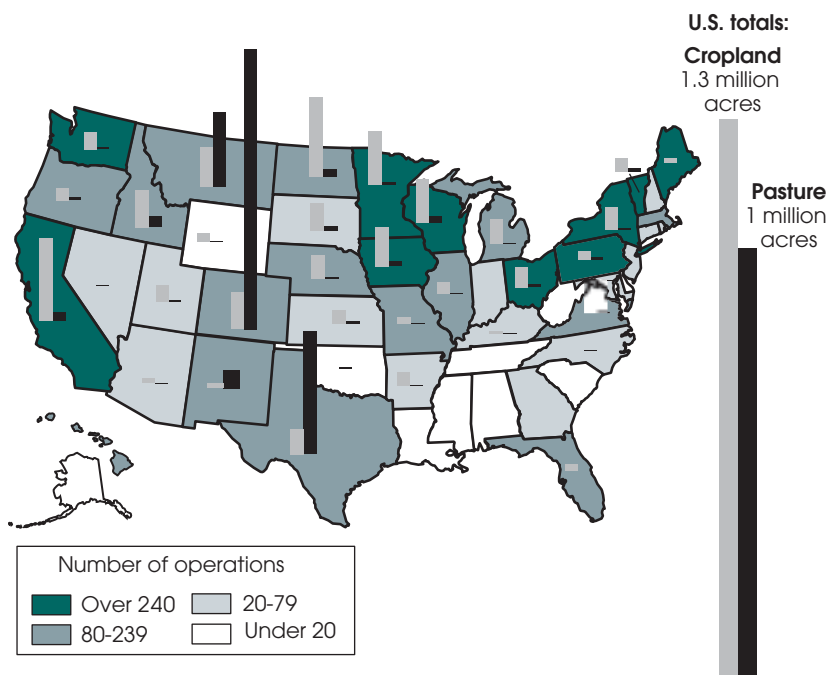
On September 23-26, 2002, the U.S. government hosted an Organization for Economic Cooperation and Development (OECD) Workshop on Organic Agriculture. Three USDA agencies—the Economic Research Service, the Agricultural Marketing Service, and the Agricultural Research Service—were major government sponsors. The U.S. location provided an opportunity for a broad spectrum of U.S.-based groups to participate.

The workshop:

- examined empirical evidence on the economic, environmental, and social impacts of organic agriculture in relation to "integrated" or "conventional" farming systems,
- identified the conditions under which organic agricultural systems are sustainable,
- reviewed market approaches and policies used to encourage, certify, and regulate organic agriculture,
- explored the trade effects of different policies on organic agriculture,
- contributed to OECD's work on agri-environmental issues, and
- generated practical policy advice.

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U.S. Certified Organic Farmland and Operations, 2001



Economic Research Service, USDA

Producers capture a much higher share of the consumer food dollar when they market their produce directly to consumers, and USDA and other producer surveys indicate that organic farmers market directly much more frequently than do conventional farmers. States and municipalities, along with private conservation groups and others, have been fostering the development of local markets for the last decade, and the number of these outlets has jumped substantially. In the Northeast, mid-Atlantic and other regions, the majority of certified organic operations are small-scale farms that produce a variety of vegetable crops, fruits, herbs, and flowers for marketing directly to local consumers.

Small-scale organic farmers are also enhancing the viability of their operations by producing a large array of “value-added” products—foods processed on their farm or in farm-owned plants or farm-based cooperatives—to sell directly to the consumer in addition to fresh fruits and vegetables. According to the Organic Farming Research Foundation’s most recent organic producer survey, 31 percent of respondents produced value-added products in 1997. The products included

salsa, syrup, cider, pickles, preserves, dried and canned fruits and vegetables, butter, yogurt, cheese, milled flours, meat products, and wine.

Research Has Shown...

A limited, but growing number of studies in the U.S. have examined yields, input costs, profitability, managerial requirements, and other economic characteristics of organic farming. A 1990 review of the U.S. literature by researchers at Cornell University concluded that “variation within organic and conventional farming systems is likely as large as the differences between the two systems.” More recent U.S. studies at several universities and USDA Agricultural Experiment Stations have indicated that price premiums on organic products may provide organic farming systems comparable or higher whole-farm profits than conventional systems, particularly for crops like processed tomatoes and cotton.

Under certain circumstances, organic systems may be more profitable than conventional systems, even without price premiums. For example, university studies of Midwestern organic grain and soybean

production have found some organic systems to be more profitable than conventional systems due to higher yields in drier areas or periods, lower input costs, or higher revenue from the mix of crops used in the system. Recent studies by Washington State University and the University of California, comparing organic and conventional systems for apple production, have also shown higher returns under the organic systems.

Net returns to various organic production systems will vary with biophysical and economic factors—such as soil type, climate, proximity to markets, and other farm-specific factors—and a system that is optimal in one location may not be optimal in another. Also, factors not captured in standard profit calculations, such as convenience, longer term planning horizons, and environmental ethics can motivate adoption of a particular organic practice or farming system. Further research is needed to enhance understanding of the factors influencing returns to organic farming systems. **AO**

Catherine Greene (202) 694-5541

cgreene@ers.usda.gov

Amy Kremen (202) 694-5543

akremen@ers.usda.gov

USDA information on organic farming:

Agricultural Marketing Service/National Organic Program (NOP) web site at www.ams.usda.gov/nop/

ERS organic farming and marketing briefing room at www.ers.usda.gov/briefing/Organic/

“Organic Food Industry Taps Growing American Market,” *AO*, October 2002 www.ers.usda.gov/publications/AgOutlook/Oct2002/

Selected University websites:

University of California, Davis
<http://agronomy.ucdavis.edu/safs/>

University of West Virginia
www.caf.wvu.edu/plsc/organic

University of Minnesota
http://swroc.coafes.umn.edu/Ocp/main_page.html